

# IMPROVING STUDENTS' WRITING SKILLS ON PROCEDURE TEXTS BY USING VIDEO GAMES

(A Quasi-experimental Study Conducted in the First Grade of Senior High School at SMA Plus  
Islam Pacet)

**Siti Nurhalimah**

[sitinurhalimah3981@gmail.com](mailto:sitinurhalimah3981@gmail.com)

**Wintarsih**

[Wintarsih2010@gmail.com](mailto:Wintarsih2010@gmail.com)

**UNIVERSITAS BALE BANDUNG**

## ABSTRACT

The research paper entitled “Improving Students' Writing Skills on Procedure Texts by Using Video Games”, aims to investigate the effectiveness of using a video game in teaching writing of procedure texts and to find out the students' perceptions toward the use of video game in learning. The research was conducted in the first grade at SMA Plus Islam Pacet using quasi-experimental design with a quantitative method, involving 40 students divided into an experimental and a control group. The data were collected through pre-test, post-test, and questionnaire. The results of the independent t-test ( $df = 38$ ,  $p = 0.05$ ) showed that the obtained t-value (3.095) was higher than the t-table (2.024), while the dependent t-test ( $df = 19$ ,  $p = 0.05$ ) also showed that the obtained t-value (9.893) was higher than the t-table (1.729). Based on these results, the Null Hypothesis ( $H_0$ ) was rejected and the Alternative Hypothesis ( $H_a$ ) was accepted, which means that there is a significant difference between those who use video games and those who use conventional methods, indicating the use of the *Cooking Mama: Let's Cook!* video game is effective. Furthermore, the questionnaire results showed that students gave positive responses, as 90% found it engaging, 95% stated it helped them understand procedure texts, and 90% agreed it increased their writing motivation, indicating that they perceived the use of the video game as engaging, helpful, and motivating in the learning process.

*Keywords: writing skills; procedure texts; video games.*

## INTRODUCTION

Writing is an essential skill in learning English because it allows learners to express ideas and communicate effectively. It also plays an important role in developing students' critical thinking and language proficiency (Shvidko, 2020, as cited in Aina, 2024). However, many students still face difficulties in writing due to limited vocabulary, grammar difficulties, and low motivation to write (Budjalemba & Listyani, 2020). To overcome these problems, teachers can integrate technology to create more engaging learning experiences (Rahayu, 2025). One of the technologies that can be used is video games. Video games can assist students in learning procedure texts, which provide instructions on how to do or make something (Pardiyono, 2007, as cited in Zulma, 2020). This research uses the *Cooking Mama: Let's Cook!* video game as a medium to help students write procedure texts more easily, since it guides players step by step to complete specific tasks.

In previous study, Siregar (2022) found that the use of *the Cooking Mama: Let's Cook!* video game has a significant effect on the ability to write procedural texts among eight-grade students. Therefore, previous studies mainly involved junior high school students as the research population and focused only on measuring video games in improving students' writing ability. Therefore, this study not only investigates the effectiveness of *Cooking Mama: Let's Cook!* video game in teaching writing procedural texts to senior high school students but also to explore students' perceptions of the use *Cooking Mama: Let's Cook!* video game in writing procedure texts.

Based on the description above, the researcher is interested in doing the research entitled "Improving Students' Writing Skill on Procedure Texts by Using Video Games."

## **RESEARCH QUESTIONS**

Based on the research background, the research questions are stated as follows:

- 1) Does the use video game as a means of teaching writing procedural texts has significantly better results than the conventional methods?
- 2) To what extent students perceive of video game as a means in learning writing of procedural texts?

## **LITERATURE REVIEW**

### **Writing skills**

Writing skills are an essential part of learning English. As state by Febriyanti et al. (2017) as cited in Fitria (2024), writing skills are a fundamental aspect of language acquisition for learners in learning English. Writing is regarded as one of the essential abilities that students should master. Proficiency in writing is essential since it affects students' capacity and performance in learning English. Writing skills in high school students include the capacity to arrange sentences, select an appropriate vocabulary or words, and communicate thoughts in a logical and clear way.

### **Procedure Text**

Procedure text is a type of text that explains how to accomplish something. Procedure text is instructional text that shows us how to do something by following a series of steps and actions (Fareed et al., 2016). The purpose of procedure text is as the definition states, to teach someone how to make, do, or operate something. Through writing procedure texts about how to prepare or make various dishes, students can learn to give instructions clearly and logically that are complete with the main components of a procedure text (the goal, materials, and steps).

### **Video Games**

According to Baranowski et al. (2008) as cited in (Vázquez et al., 2018) define video games as games played on digital platforms that involve various types of user interaction. The term of "video game" in this study refers to educational video games that function as interactive learning tools to help students in understanding and writing procedural texts in English.

### ***Cooking Mama: Let's Cook!* video game**

The *Cooking Mama: Let's Cook!* video game is a media franchise and series of Japanese video games owned by Cooking Mama Co., Ltd. This series is a collection of Nintendo adventure cooking simulation video games and mini games (Siregar, 2022). This video game guides the players to follow step-by-step instructions to prepare various dishes, making it an interactive and engaging experience for students in learning to write a procedural text.

## RESEARCH METHOD

This study employed a quantitative method with a quasi-experimental design. The population consisted of 42 first-grade students of SMA Plus Islam Pacet, divided into two groups: X-1 (control group) and X-2 (experimental group). Both classes were taken as the sample using a total sampling technique. The students included 19 males and 23 females aged 15–16 years.

To collect the data, two instruments were employed, namely tests (pre-test and post-test) and a questionnaire. The pre-test was administered during the first meeting to both the experimental and control groups to measure students' initial writing ability and ensure that both groups had equal proficiency before the treatment. After the pre-test, the researcher conducted the treatment sessions, where the experimental group was taught writing procedure texts using the *Cooking Mama: Let's Cook!* video game, while the control group was taught through conventional methods. A post-test was then given to both groups to measure their improvement in writing procedure texts. Finally, a questionnaire was given only to the experimental group to explore their responses toward the use of the *Cooking Mama: Let's Cook!* video game in writing procedure texts.

The data obtained from the pre-test and post-test of the experimental and control groups were analyzed using the independent t-test with the following formula by (Coolidge, 2006):

$$t = \frac{X_1 - X_2}{\sqrt{\left( \frac{\sum X^2 - \frac{(\sum X_1)^2}{N_1} + \sum X_2^2 - \frac{(\sum X_2)^2}{N_2}}{N_1 + N_2 - 2} \right) \cdot \left( \frac{1}{N_1} + \frac{1}{N_2} \right)}}$$

Description:

$X_1$  = the mean of the scores of the first group (experimental)

$X_2$  = the mean of the scores of the second group (control)

$\sum X_1^2$  = the sum of the squares of the first group

$\sum X_2^2$  = the sum of the squares of the second group

$(\sum X_1)^2$  = the squares of the sum of the scores of the first group

$(\sum X_2)^2$  = the squares of the sum of the scores of the second group

$N_1$  = the total number of scores in the first group

$N_2$  = the total number of scores in the second group

The data obtained from the pre-test and post-test of the experimental group were analyzed using the dependent t-test or paired t-test with the following formula:

$$t = \frac{X_1 - X_2}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{N}}{N(N-1)}}}$$

Description:

$X_1$  = the mean of the pre-test scores.

$X_2$  = the mean of the post-test scores.

$\sum D^2$  = the sum of the squares of the differences between the pre-test and the post-test scores.

$N$  = the number pairs of scores.

$Df$  = the degree of freedom

The data obtained from the questionnaire was calculated by using descriptive statistics with the following formula (Suherman & Sukjaya, 1991 as cited in Malik & Chusni, 2018):

$$X = \frac{Y}{Z} \times 100 \%$$

Description:

$X$  = percentage (quality of the answer)  
 $Y$  = frequency of respondent's answer  
 $N$  = total amount (total of respondents)  
 100% = constant

Based on the formula above, the following table shows the interpretation of students' responses from the questionnaire results, adapted from Maulana (2002, as cited in Sudjana, 2005).

**Table 1. The Criteria of Percentage**

| Intensity Level Interval | Criteria                       |
|--------------------------|--------------------------------|
| 0%                       | None of students               |
| 1 - 25%                  | Small number of the students   |
| 26 – 49%                 | Nearly half of the students    |
| 50%                      | Half of the students           |
| 51 – 75%                 | More than half of the students |
| 76 – 99%                 | Most of the students           |
| 100%                     | All of students                |

A score of 0% means no students responded, 1–25% means a few students, 26–49% represents nearly half, 50% shows half, 51–75% means more than half, 76–99% means most students, and 100% means all of students responded.

## FINDINGS AND DISCUSSION

### 1) The Data of Pre-test

The computation data of the pre-test is shown in the following table:

**Table 2. The Computation of Pre-test Scores**

| No | Experimental Group |       |         | Control Group |       |         |
|----|--------------------|-------|---------|---------------|-------|---------|
|    | Sample             | $X_1$ | $X_1^2$ | Sample        | $X_2$ | $X_2^2$ |
| 1  | Student 1          | 50    | 2500    | Student 1     | 70    | 4900    |
| 2  | Student 2          | 45    | 2025    | Student 2     | 80    | 6400    |
| 3  | Student 3          | 30    | 900     | Student 3     | 35    | 1225    |
| 4  | Student 4          | 55    | 3025    | Student 4     | 60    | 3600    |
| 5  | Student 5          | 70    | 4900    | Student 5     | 40    | 1600    |
| 6  | Student 6          | 45    | 2025    | Student 6     | 70    | 4900    |
| 7  | Student 7          | 70    | 4900    | Student 7     | 65    | 4225    |
| 8  | Student 8          | 55    | 3025    | Student 8     | 40    | 1600    |
| 9  | Student 9          | 65    | 4225    | Student 9     | 75    | 5625    |
| 10 | Student 10         | 45    | 2025    | Student 10    | 70    | 4900    |
| 11 | Student 11         | 35    | 1225    | Student 11    | 55    | 3025    |
| 12 | Student 12         | 70    | 4900    | Student 12    | 60    | 3600    |
| 13 | Student 13         | 70    | 4900    | Student 13    | 75    | 5625    |
| 14 | Student 14         | 70    | 4900    | Student 14    | 20    | 400     |

|          |            |                     |                         |            |                     |                         |
|----------|------------|---------------------|-------------------------|------------|---------------------|-------------------------|
| 15       | Student 15 | 65                  | 4225                    | Student 15 | 80                  | 6400                    |
| 16       | Student 16 | 55                  | 3025                    | Student 16 | 75                  | 5625                    |
| 17       | Student 17 | 55                  | 3025                    | Student 17 | 70                  | 4900                    |
| 18       | Student 18 | 65                  | 4225                    | Student 18 | 15                  | 225                     |
| 19       | Student 19 | 75                  | 5625                    | Student 19 | 75                  | 5625                    |
| 20       | Student 20 | 65                  | 4225                    | Student 20 | 15                  | 225                     |
| $\Sigma$ |            | $\Sigma X_1 = 1155$ | $\Sigma X_1^2 = 69,825$ | $\Sigma$   | $\Sigma X_2 = 1145$ | $\Sigma X_2^2 = 74,625$ |

From the data above, the researcher did some steps to compute the data using independent t-test formula, the steps are:

Steps 1: Calculate the  $\bar{X}_1$  (the sum of the mean of experimental group)

$$\bar{X}_1 = \frac{\Sigma X_1}{N_1} = \frac{1155}{20} = 57.75$$

Steps 2: Calculate the  $\bar{X}_2$  (the sum of the mean of control group)

$$\bar{X}_2 = \frac{\Sigma X_2}{N_2} = \frac{1145}{20} = 57.25$$

Steps 3: Calculate the  $\Sigma X_1^2$  (the sum of the square of experimental group)

$$\Sigma X_1^2 = 69,825$$

Steps 4: Calculate the  $\Sigma X_2^2$  (the sum of the square of control group)

$$\Sigma X_2^2 = 74,625$$

Steps 5: Calculate the  $(\Sigma X_1)^2$  (the square of the sum of the scores of the experimental group)

$$(\Sigma X_1)^2 = (1155)^2$$

$$(\Sigma X_1)^2 = 1,334,025$$

Steps 6: Calculate the  $(\Sigma X_2)^2$  (the square of the sum of the scores of the control group)

$$(\Sigma X_2)^2 = (1145)^2$$

$$(\Sigma X_2)^2 = 1,311,025$$

Steps 7: Calculate the  $Df$  (sum the number of experimental and control group)

$$N_1 = 20$$

$$N_2 = 20$$

$$Df = N_1 + N_2 - 2$$

$$Df = 20 + 20 - 2$$

$$Df = 38$$

Steps 8: Enter the values obtained in steps 1-7 into the formula for the t-test

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\left( \frac{\Sigma X_1^2 - \frac{(\Sigma X_1)^2}{N_1}}{N_1 + N_2 - 2} + \frac{\Sigma X_2^2 - \frac{(\Sigma X_2)^2}{N_2}}{N_1 + N_2 - 2} \right) \left( \frac{1}{N_1} + \frac{1}{N_2} \right)}}$$

$$t = \frac{57.75 - 57.25}{\sqrt{\left( \frac{69,825 - \frac{(1155)^2}{20}}{20 + 20 - 2} + \frac{74,625 - \frac{(1145)^2}{20}}{20 + 20 - 2} \right) \left( \frac{1}{20} + \frac{1}{20} \right)}}$$

$$t = \frac{0.5}{\sqrt{\left(\frac{69,825 - \frac{(1,334,025)}{20}}{38} + \frac{74,625 - \frac{(1,311,025)}{20}}{38}\right) \cdot \left(\frac{1}{10}\right)}}$$

$$t = \frac{0.5}{\sqrt{\left(\frac{69,825 - 66,701}{38} + \frac{74,625 - 65,551}{38}\right) \cdot \left(\frac{1}{10}\right)}}$$

$$t = \frac{0.5}{\sqrt{\left(\frac{3,124 + 9,074}{38}\right) \cdot \left(\frac{1}{10}\right)}}$$

$$t = \frac{0.5}{\sqrt{\left(\frac{12,198}{38}\right) \cdot \left(\frac{1}{10}\right)}} \quad t = \frac{0.5}{\sqrt{(321) \cdot \left(\frac{1}{10}\right)}}$$

$$t = \frac{0.5}{\sqrt{32.1}} = \frac{0.5}{5.6} = 0.08$$

T-value = 0.08

Steps 9: Interpret the result of computation

Based on the calculation above, the result of the t-test is 0.08, while the critical value from the t-table at  $p = 0.05$  (two-tailed) with  $df = N_1 + N_2 - 2 = 20 + 20 - 2 = 38$  is 2.024. Since the obtained score is lower than the critical value ( $0.08 < 2.024$ ), it can be concluded that there is no significant difference in students' writing skills between the experimental and control groups. This indicates that both groups had equal writing abilities before the treatment sessions were conducted.

## 2) The Data of Post-test

The computation data of post-test is shown in the following table:

**Table 3. The Computation of Post-test Scores**

| No | Experimental Group |       |         | Control Group |       |         |
|----|--------------------|-------|---------|---------------|-------|---------|
|    | Sample             | $X_1$ | $X_1^2$ | Sample        | $X_2$ | $X_2^2$ |
| 1  | Student 1          | 75    | 5625    | Student 1     | 80    | 6400    |
| 2  | Student 2          | 70    | 4900    | Student 2     | 85    | 7225    |
| 3  | Student 3          | 75    | 5625    | Student 3     | 60    | 3600    |
| 4  | Student 4          | 75    | 5625    | Student 4     | 70    | 4900    |
| 5  | Student 5          | 85    | 7225    | Student 5     | 70    | 4900    |
| 6  | Student 6          | 70    | 4900    | Student 6     | 75    | 5625    |
| 7  | Student 7          | 90    | 8100    | Student 7     | 70    | 4900    |
| 8  | Student 8          | 70    | 4900    | Student 8     | 80    | 6400    |
| 9  | Student 9          | 90    | 8100    | Student 9     | 90    | 8100    |
| 10 | Student 10         | 85    | 7225    | Student 10    | 60    | 3600    |
| 11 | Student 11         | 80    | 6400    | Student 11    | 80    | 6400    |
| 12 | Student 12         | 90    | 8100    | Student 12    | 70    | 4900    |
| 13 | Student 13         | 90    | 8100    | Student 13    | 70    | 4900    |
| 14 | Student 14         | 85    | 7225    | Student 14    | 65    | 4225    |
| 15 | Student 15         | 75    | 5625    | Student 15    | 80    | 6400    |
| 16 | Student 16         | 85    | 7225    | Student 16    | 85    | 7225    |
| 17 | Student 17         | 85    | 7225    | Student 17    | 70    | 4900    |
| 18 | Student 18         | 85    | 7225    | Student 18    | 40    | 1600    |
| 19 | Student 19         | 85    | 7225    | Student 19    | 75    | 5625    |

|          |            |                        |                             |            |                        |                             |
|----------|------------|------------------------|-----------------------------|------------|------------------------|-----------------------------|
| 20       | Student 20 | 75                     | 5625                        | Student 20 | 50                     | 2500                        |
| $\Sigma$ |            | $\Sigma X_1$<br>= 1620 | $\Sigma X_1^2$<br>= 132,200 | $\Sigma$   | $\Sigma X_2$<br>= 1425 | $\Sigma X_2^2$<br>= 104,325 |

Steps 1: Calculate the  $\bar{X}_1$  (the sum of the mean of experimental group)

$$\bar{X}_1 = \frac{\Sigma X_1}{N_1} = \frac{1620}{20} = 81.0$$

Steps 2: Calculate the  $\bar{X}_2$  (the sum of the mean of control group)

$$\bar{X}_2 = \frac{\Sigma X_2}{N_2} = \frac{1425}{20} = 71.25$$

Steps 3: Calculate the  $\Sigma X_1^2$  (the sum of the square of experimental group)

$$\Sigma X_1^2 = 132,200$$

Steps 4: Calculate the  $\Sigma X_2^2$  (the sum of the square of control group)

$$\Sigma X_2^2 = 104,325$$

Steps 5: Calculate the  $(\Sigma X_1)^2$  (the square of the sum of the scores of the experimental group)

$$(\Sigma X_1)^2 = (1620)^2$$

$$(\Sigma X_1)^2 = 2,624,400$$

Steps 6: Calculate the  $(\Sigma X_2)^2$  (the square of the sum of the scores of the control group)

$$(\Sigma X_2)^2 = (1425)^2$$

$$(\Sigma X_2)^2 = 2,030,625$$

Steps 7: Calculate the  $Df$  (sum the number of experimental and control group)

$$N_1 = 20$$

$$N_2 = 20$$

$$Df = N_1 + N_2 - 2$$

$$Df = 20 + 20 - 2$$

$$Df = 38$$

Steps 8: Enter the values obtained in steps 1-7 into the formula for the t-test

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\left( \frac{\Sigma X_1^2}{N_1} - \frac{(\Sigma X_1)^2}{N_1} \right) + \left( \frac{\Sigma X_2^2}{N_2} - \frac{(\Sigma X_2)^2}{N_2} \right) \cdot \left( \frac{1}{N_1} + \frac{1}{N_2} \right)}}$$

$$t = \frac{81.0 - 71.25}{\sqrt{\left( \frac{132,200}{20} - \frac{(1620)^2}{20} \right) + \left( \frac{104,325}{20} - \frac{(1425)^2}{20} \right) \cdot \left( \frac{1}{20} + \frac{1}{20} \right)}}$$

$$t = \frac{9.75}{\sqrt{\left( \frac{124,550 - (2,624,400)}{20} + \frac{104,325 - (2,030,625)}{20} \right) \cdot \left( \frac{1}{10} \right)}}$$

$$t = \frac{9.75}{\sqrt{\left( \frac{132,200 - 131,220 + 104,325 - 101,531}{38} \right) \cdot \left( \frac{1}{10} \right)}}$$

$$t = \frac{9.75}{\frac{\sqrt{980 + 2,794}}{38} \cdot \left(\frac{1}{10}\right)} = \frac{9.75}{\sqrt{99.3} \cdot \left(\frac{1}{10}\right)} = \frac{9.75}{3.15} = 3.095$$

Steps 9: Interpret the result of computation

Based on the calculation above, with the with  $df = N_1 + N_2 - 2 = 20 + 20 - 2 = 38$ , at  $p = .05$  of two tailed, the critical value of t is 3.095. As the value of the derived t (to) is bigger than the critical t (t-table)  $\rightarrow 3.095 > 2.024$ , the null hypothesis ( $H_0$ ) is rejected, and the alternative hypothesis ( $H_a$ ) is accepted. This indicates that there is a significant difference in students' writing of procedure texts between those who use a video game and those who use conventional methods in the first grade of SMA Plus Islam Pacet.

In other words, the use of the *Cooking Mama: Let's Cook!* video game as a means of teaching writing procedural texts is a significantly better result than conventional teaching methods. This also means that this technique is effective.

### 3) The Data of the Pre-test and Post-test of the Experimental Group

The computation data of pre-test and post-test is shown in the following table:

**Table 4. Table of the Pre-test and Post-test of the Experimental Group**

| No       | Subject    | $X_1$               | $X_2$               | D scores                          | $D^2$                 |
|----------|------------|---------------------|---------------------|-----------------------------------|-----------------------|
| 1        | Student 1  | 50                  | 75                  | -25                               | 625                   |
| 2        | Student 2  | 45                  | 70                  | -25                               | 625                   |
| 3        | Student 3  | 30                  | 75                  | -45                               | 2025                  |
| 4        | Student 4  | 55                  | 75                  | -20                               | 400                   |
| 5        | Student 5  | 70                  | 85                  | -15                               | 225                   |
| 6        | Student 6  | 45                  | 70                  | -25                               | 625                   |
| 7        | Student 7  | 70                  | 90                  | -20                               | 400                   |
| 8        | Student 8  | 55                  | 70                  | -15                               | 225                   |
| 9        | Student 9  | 65                  | 90                  | -25                               | 625                   |
| 10       | Student 10 | 45                  | 85                  | -40                               | 1600                  |
| 11       | Student 11 | 35                  | 80                  | -45                               | 2025                  |
| 12       | Student 12 | 70                  | 90                  | -20                               | 400                   |
| 13       | Student 13 | 70                  | 90                  | -20                               | 400                   |
| 14       | Student 14 | 70                  | 85                  | -15                               | 225                   |
| 15       | Student 15 | 65                  | 75                  | -10                               | 100                   |
| 16       | Student 16 | 55                  | 85                  | -30                               | 900                   |
| 17       | Student 17 | 55                  | 85                  | -30                               | 900                   |
| 18       | Student 18 | 65                  | 85                  | -20                               | 400                   |
| 19       | Student 19 | 75                  | 85                  | -10                               | 100                   |
| 20       | Student 20 | 65                  | 75                  | -10                               | 100                   |
| $\Sigma$ |            | $\Sigma X_1 = 1155$ | $\Sigma X_2 = 1620$ | $\Sigma D = 465$                  | $\Sigma D^2 = 12,925$ |
|          |            |                     |                     | $(\Sigma D)^2 = -465^2 = 216,225$ |                       |

From the data above, there are some steps to compute the data using dependent t-test formula, the steps are:

Step 1: Calculate the mean of pre-test scores ( $X_1$ )

$$\bar{X}_1 = \frac{\sum X_1}{N_1} = \frac{1155}{20} = 57.75$$

Step 2: Calculate the mean of post-test scores ( $X_2$ )

$$\bar{X}_2 = \frac{\sum X_2}{N_2} = \frac{1620}{20} = 81.0$$

Step 3: Calculate the  $N$  (the degree of freedom)

$$N = 20$$

Step 4: Enter the values obtained in the table, steps 1-3 into the formula for dependent t-test:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sum D^2 - \frac{(\sum D)^2}{N}}{N(N-1)}}$$

$$t = \frac{57.75 - 81.0}{\sqrt{\frac{216,225}{20}}} = \frac{-23.25}{\sqrt{\frac{12,925 - 10,811}{20(19)}}}$$

$$t = \frac{-23.25}{\sqrt{\frac{2,114}{380}}} = \frac{-23.25}{\sqrt{5.56}} = \frac{-23.25}{2.35} = -9.893$$

Step 5: Interpret the result of computation

Based on the calculation above, as the derived t-value of 9.893 exceeds the critical value of  $t = 1.729$  at a significance level of  $p = .05$  (one-tailed) with  $df = 19$  ( $9.893 > 1.729$ ). Therefore, the null hypothesis ( $H_0$ ) is rejected, and the alternative hypothesis ( $H_a$ ) is accepted. This indicates that there is a significant difference in the students' writing scores of procedure texts before and after the treatment using *Cooking Mama: Let's Cook!* as a learning medium. In other words, the use of *Cooking Mama: Let's Cook!* in teaching writing of procedural text to the first-grade students of SMA Plus Islam Pacet is effective.

#### 4) The Result of the Questionnaires

**Table 5. The Percentage Result of Questionnaires**

| No | Questions<br>(Pertanyaan)                                                                              | Yes<br>(Ya)  | No<br>(Tidak) |
|----|--------------------------------------------------------------------------------------------------------|--------------|---------------|
| 1. | Do you enjoy learning English?<br>(Apakah kamu senang belajar Bahasa Inggris?)                         | 15<br>(75%)  | 5<br>(25%)    |
| 2. | Learning English will be usefull for life.<br>(Belajar Bahasa Inggris akan bermanfaat untuk kehidupan) | 20<br>(100%) | 0<br>(0%)     |
| 3. | Writing is important.<br>(Menulis itu penting)                                                         | 19<br>(95%)  | 1<br>(5%)     |

|     |                                                                                                                                                                                                                                                                    |              |             |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------|
| 4.  | Writing helps express the ideas.<br>( <i>Menulis membantu mengekspresikan ide-ide</i> )                                                                                                                                                                            | 20<br>(100%) | 0<br>(0%)   |
| 5.  | Do you like writing in English?<br>( <i>Apakah kamu suka menulis dalam Bahasa Inggris?</i> )                                                                                                                                                                       | 8<br>(40%)   | 12<br>(60%) |
| 6.  | Do you know about the Procedure Text?<br>( <i>Apakah kamu mengetahui tentang Teks Prosedur?</i> )                                                                                                                                                                  | 13<br>(65%)  | 7<br>(35%)  |
| 7.  | Have you ever written a procedure text in English?<br>( <i>Apakah kamu pernah menulis sebuah teks prosedur dalam Bahasa Inggris</i> )                                                                                                                              | 20<br>(100%) | 0<br>(0%)   |
| 8.  | In your opinion, is writing a procedure text easy?<br>( <i>Menurutmu, apakah menulis teks prosedur itu mudah?</i> )                                                                                                                                                | 7<br>(35%)   | 13<br>(65%) |
| 9.  | Do you like playing video games?<br>( <i>Apakah kamu suka bermain permainan video?</i> )                                                                                                                                                                           | 13<br>(65%)  | 7<br>(35%)  |
| 10. | Are video games beneficial for learning?<br>( <i>Apakah permainan video bermanfaat untuk belajar?</i> )                                                                                                                                                            | 15<br>(75%)  | 5<br>(25%)  |
| 11. | Do you know about the <i>Cooking Mama: Let's Cook!</i> video game?<br>( <i>Apakah kamu mengetahui tentang permainan Cooking Mama: Let's Cook! ?</i> )                                                                                                              | 17<br>(85%)  | 3<br>(15%)  |
| 12. | Does using the <i>Cooking Mama: Let's Cook!</i> video game make the learning process more engaging?<br>( <i>Apakah menggunakan video game Cooking Mama: Let's Cook! membuat proses pembelajaran menjadi lebih menarik?</i> )                                       | 18<br>(90%)  | 2<br>(10%)  |
| 13. | Does using the <i>Cooking Mama: Let's Cook!</i> video game help you understand how to write a procedure text?<br>( <i>Apakah menggunakan permainan video Cooking Mama: Let's Cook! membantu kamu memahami cara menulis teks prosedur?</i> )                        | 19<br>(95%)  | 1<br>(5%)   |
| 14. | After using the <i>Cooking Mama: Let's Cook!</i> video game, do you feel more motivated to write in English?<br>( <i>Setelah menggunakan permainan video Cooking Mama: Let's Cook!, apakah kamu merasa lebih termotivasi untuk menulis dalam Bahasa Inggris?</i> ) | 18<br>(90%)  | 2<br>(10%)  |
| 15. | Do you like this learning method?<br>( <i>Apakah kamu menyukai metode pembelajaran ini?</i> )                                                                                                                                                                      | 20<br>(100%) | 0<br>(0%)   |

The results of the questionnaire above showed some variations in students' responses to the questions available. After the researcher analyzed their responses, it can be concluded that the use of the *Cooking Mama: Let's Cook!* video game in teaching and learning the writing of procedure texts received positive responses from students.

## DISCUSSIONS

The research investigated the use of *Cooking Mama: Let's Cook!* in teaching writing of procedure texts. After the treatments were conducted for both the experimental and control groups, the results showed a significant difference in students' writing performance between the two groups. The mean score of the experimental group was 81.0, while the control group was 71.2. The independent t-test result was 3.095, with a degree of freedom (df) of 38. The critical value of t at the 0.05 level of

significance for  $df = 38$  is 2.024, it indicated that the obtained t-value exceeded the critical value ( $3.095 > 2.024$ ).

In addition, the scores of the experimental group increased from the pre-test to the post-test. The mean score in the pre-test was 57.75 and increased to 81.0 in the post-test. The result of the dependent or paired t-test was 9.893, with a degree of freedom (df) of 19. The t-table value at the 0.05 significance level for  $df = 19$  is 1.729, which means there is a significant improvement in the students' writing performance before and after treatment sessions.

After getting the results from giving tests to students in both the experimental and control groups, the research showed that teaching writing of procedure texts by using the *Cooking Mama: Let's Cook!* video game can improve students' writing skills. This means that the alternative hypothesis ( $H_a$ ) was accepted and the null hypothesis ( $H_o$ ) was rejected, stating that there had a significant difference in students' writing of procedure texts between those who use a video game and those who use conventional methods. It can be concluded that the use of *Cooking Mama: Let's Cook!* video game in the first grade of SMA Plus Islam Pacet had significantly better results than conventional methods.

Furthermore, the researcher found that this research received several positive responses from students through the questionnaire given after the treatment to the experimental group. Based on the results of the questionnaire showed that all of students (100%) agreed that writing helped them express their ideas, most of students (90%) stated that the *Cooking Mama: Let's Cook!* video game made learning more engaging, (95%) or most of students agreed that it helped them understand how to write a procedure text, and most of students (90%) also felt that it increased their motivation to write. Finally, all of students (100%) liked this learning method, which shows that the *Cooking Mama: Let's Cook!* video game was positively received as a teaching and learning medium.

## CONCLUSION

The research findings showed that the *Cooking Mama: Let's Cook!* video game is more effective in teaching the writing of procedure texts to the first grade of senior high school students at SMA Plus Islam Pacet than the conventional methods. The independent t-test revealed that there a significant difference between those who use a video games and those who use conventional methods, while the dependent t-test showed a significant improvement in the experimental group's scores from the pre-test to the post-test. This means the alternative hypothesis ( $H_a$ ) was accepted and the null hypothesis ( $H_o$ ) was rejected, indicating that there was a significant difference in students' writing of procedure texts between those who use a video game and those who use conventional methods.

Furthermore, the questionnaire results showed that almost all students in the experimental group perceived the use of the *Cooking Mama: Let's Cook!* video game positively. They agreed that it made learning more engaging, it was beneficial for understanding procedure texts, and it increased their motivation to write.

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